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=> fil reg
FILE 'REGISTRY' ENTERED AT 09:06:50 ON 08 FEB 2011
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STRUCTURE FILE UPDATES:    7 FEB 2011  HIGHEST RN 1262277-39-3
DICTIONARY FILE UPDATES:   7 FEB 2011  HIGHEST RN 1262277-39-3

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TSCA INFORMATION NOW CURRENT THROUGH June 26, 2010.

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REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> d ide can tot l17

L17  ANSWER 1 OF 3  REGISTRY  COPYRIGHT 2011 ACS on STN
RN   40248-84-8  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Phenol, 3-mercapto-  (CA INDEX NAME)
OTHER NAMES:
CN   3-Hydroxybenzenethiol
CN   3-Hydroxyphenylmercaptan
CN   3-Hydroxythiophenol
CN   3-Mercaptophenol
CN   m-Hydroxybenzenethiol
CN   m-Mercaptophenol
CN   Monothioresorcinol
MF   C6 H6 O S
CI   COM
LC   STN Files:   CA, CAPLUS, CASREACT, CHEMCATS, IFICDB, IFIPAT, IFIUDB,
       REAXYSFILE*, TOXCENTER, USPAT2, USPATFULL, USPATOLD
         (*File contains numerically searchable property data)
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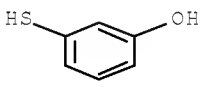


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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

             124 REFERENCES IN FILE CA (1907 TO DATE)
               4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             124 REFERENCES IN FILE CAPLUS (1907 TO DATE)
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REFERENCE 1: 154:30410

REFERENCE 2: 154:11144

REFERENCE 3: 153:643216

REFERENCE 4: 153:232372

REFERENCE 5: 153:204023

REFERENCE 6: 152:568265

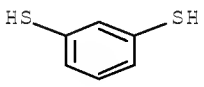
REFERENCE 7: 152:357724

REFERENCE 8: 152:287392

REFERENCE 9: 152:191792

REFERENCE 10: 152:170754

L17 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2011 ACS on STN
RN 626-04-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN 1,3-Benzenedithiol (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN m-Benzenedithiol (6CI, 7CI, 8CI)
OTHER NAMES:
CN 1,3-Dimercaptobenzene
CN Dithioresorcinol
CN Thioresorcinol
MF C6 H6 S2
CI COM
LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, GMELIN*, IFICDB, IFIPAT, IFIUDB, REAXYSFILE*, SPECINFO, TOXCENTER, USPAT2, USPATFULL, USPATOLD
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

226 REFERENCES IN FILE CA (1907 TO DATE)
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226 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 154:87830

REFERENCE 2: 154:23127

REFERENCE 3: 153:534422

REFERENCE 4: 153:510019

REFERENCE 5: 153:482258

REFERENCE 6: 153:382924

REFERENCE 7: 153:359490

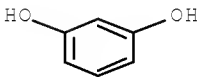
REFERENCE 8: 153:265014

REFERENCE 9: 153:186957

REFERENCE 10: 152:530481

L17 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2011 ACS on STN
RN 108-46-3 REGISTRY
ED Entered STN: 16 Nov 1984
CN 1,3-Benzenediol (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Resorcinol (8CI)
OTHER NAMES:
CN 1,3-Dihydroxybenzene
CN 3-Hydroxyphenol
CN C.I. 76505
CN C.I. Developer 4
CN C.I. Oxidation Base 31
CN Developer O
CN Developer R
CN Developer RS
CN Durafur Developer G
CN Fouramine RS
CN Fourrine 79
CN Fourrine EW
CN m-Benzenediol
CN m-Dihydroxybenzene
CN m-Hydroquinone
CN m-Hydroxyphenol
CN m-Hydroxyphenol
CN m-Phenylenediol
CN Nako TGG
CN NSC 1571
CN Pelagol Grey RS
CN Pelagol RS
CN Redimix 401RAP60
CN Reso
CN Resorcin
CN Resorcinol 80
CN Rezorsine
CN Rodol RS
CN RS 11H
CN RS 11L
MF C6 H6 O2
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, ENCOMPPAT, ENCOMPPAT2, GMELIN*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, PIRA, PS, REAXYSFILE*, RTECS*, SPECINFO, TOXCENTER, ULIDAT, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

19733 REFERENCES IN FILE CA (1907 TO DATE)
1862 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
19827 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 154:149050

REFERENCE 2: 154:144731

REFERENCE 3: 154:144728

REFERENCE 4: 154:141215

REFERENCE 5: 154:141214

REFERENCE 6: 154:141209

REFERENCE 7: 154:141208

REFERENCE 8: 154:141207

REFERENCE 9: 154:140696

REFERENCE 10: 154:139616

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 09:07:08 ON 08 FEB 2011
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 8 Feb 2011 VOL 154 ISS 7
FILE LAST UPDATED: 7 Feb 2011 (20110207/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2010

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the fourth quarter of 2010.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

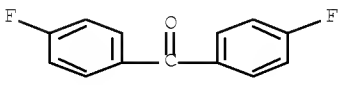
This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l68 bib abs hitind hitstr retable tot

L68 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2011 ACS on STN
AN 2006:1344078 HCAPLUS Full-text
DN 146:229750
TI Photochemically cross-linked poly(aryl ether ketone) rings
AU Teasdale, Ian; Harper, Elizabeth C.; Coppo, Paolo; Wilson, Brian; Turner, Michael L.
CS Organic Materials Innovation Centre (OMIC), School of Chemistry, The University of Manchester, Manchester, M13 9PL, UK
SO Macromolecular Rapid Communications (2006), 27(23), 2032-2037
CODEN: MRCOE3; ISSN: 1022-1336
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
AB Macrocyclic Ph ether ketones were prepared via pseudo high dilution condensation. Irradiation of these rings with UV light in a solution containing iso-Pr alc. as hydrogen donor resulted in a photo-induced reduction of benzophenone to benzopinacol and the formation linked macrocycles. These rings can be heated to undergo ring-opening polymerization and produce a polymer network or they can be added to a polycondensation reaction to prepare poly(ether ether ketones) with variable degrees of crosslinking.
CC 35-8 (Chemistry of Synthetic High Polymers)
IT 27400-53-9DP, 4-Fluoro-4'-hydroxybenzophenone homopolymer, cyclic derivs.
29658-26-2DP, 4,4'-Difluorobenzophenone-hydroquinone copolymer, cyclic derivs.
124950-77-2DP, Catechol-4,4'-difluorobenzophenone copolymer, cyclic derivs.
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation of photochem. crosslinked poly(aryl ether ketone) rings)
IT 124950-77-2DP, **Catechol-4,4'-difluorobenzophenone copolymer, cyclic derivs.**
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation of photochem. crosslinked poly(aryl ether ketone) rings)
RN 124950-77-2 HCAPLUS
CN Methanone, bis(4-fluorophenyl)-, polymer with 1,3-benzenediol (CA INDEX NAME)

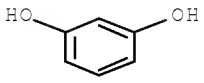
CM 1

CRN 345-92-6
CMF C13 H8 F2 O



CM 2

CRN 108-46-3
CMF C6 H6 O2



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Ben-Haida, A	2000	10	2011	J Mater Chem	HCAPLUS
Chan, C	1986			US 4616056	HCAPLUS
Chen, M	1996	29	5502	Macromolecules	HCAPLUS
Ciamician, G	1900	33	2911	Chem Ber	
Ciamician, G	1901	34	1541	Chem Ber	
Cohen, W	1920	39	243	Rec Trav Chim	HCAPLUS
Colquhoun, H	2003	13	1504	J Mater Chem	HCAPLUS
Gao, C	1995	36	4141	Polymer	HCAPLUS
Hodge, P	2005	16	84	Polym Adv Technol	HCAPLUS
Hu, W	2002	43	1405	Polym Prepr	HCAPLUS
Hunter, R	2001	11	736	J Mat Chem	HCAPLUS
Jonas, A	1993	26	2674	Macromolecules	HCAPLUS
Kunz, M	2002	43	410	Polym Prepr	HCAPLUS
Liu, X	2002	43	1288	Polym Prepr	HCAPLUS
Mercer, F	1997	38	707	Polymer	HCAPLUS
Mohanty, D	1984	25	19	Polym Prepr	HCAPLUS
Noiset, O	1997	30	540	Macromolecules	HCAPLUS
Paterno, E	1909	39b	415	Gazz Chim Ital	
Sasuga, T	2000	41	185	Polymer	HCAPLUS
Shah, B	2003	16	18	The Spectrum	HCAPLUS
Staniland, P	1989	5	492	Comprehensive Polyme	
Walker, K	1993	26	3713	Macromolecules	HCAPLUS

L68 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2011 ACS on STN
AN 2004:935246 HCAPLUS Full-text
DN 141:396494
TI Proton-conductive polymer compositions with good adhesion for proton-conductive membranes in fuel cells
IN Kuroki, Takashi; Omi, Katsuhiko; Ishikawa, Junichi; Fujiyama, Akiko; Takeda, Koji; Tamai, Masashi
PA Mitsui Chemicals Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 25 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004307629	A	20041104	JP 2003-102676	20030407
	JP 4360113	B2	20091111		
PRAI	JP 2003-102676		20030407		

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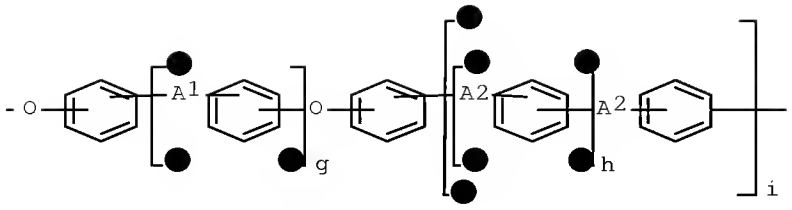


I

AB The composition comprises (A) 60–10% aromatic polyether with flow starting temperature 100–220° having repeat unit I (A1, A2 = direct bond, –CH2–, – C(CH3)2–, –C(CF3)2–, –O–, –SO2–, –CO–; g, h, i = 0, 1) and (B) 40–90% proton acid-containing aromatic polyether. Thus, 2.0 parts polyaryletherketone powder prepared from 4,4'-difluorobenzophenone, resorcin and anhydrous sodium carbonate was mixed with 2.0 parts proton acid-containing polyaryletherketone powder obtained from 3,3'-carbonylbis(sodium 6-fluorobenzenesulfonate), bis(3-methyl-4-hydroxyphenyl)methane and anhydrous sodium carbonate in N-methyl-2-pyridone, applied to a glass plate and dried to give a film, which was proton-exchanged to form a proton conductive membrane showing ion conductivity (hot melt) 0.14 S/cm.

IPCI C08L0071-10 [I,A]; C08L0071-00 [I,C*]; H01B0001-06 [I,A]; H01M0008-02 [I,A]; H01M0008-10 [I,A]

IPCR C08L0071-00 [I,C*]; C08L0071-10 [I,A]; H01B0001-06 [I,A]; H01B0001-06 [I,C*]; H01M0008-02 [I,A]; H01M0008-02 [I,C*]; H01M0008-10 [I,A]; H01M0008-10 [I,C*]

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 52

IT Fuel cell electrolytes
Fuel cells
Plastic films
(proton-conductive polymer compns. with good adhesion for proton-conductive membranes in fuel cells)

IT 69777-44-2P 124949-92-4P 124950-77-2P 137024-96-5P 785802-31-5P 785802-36-0P 785802-38-2P
RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(proton-conductive polymer compns. with good adhesion for proton-conductive membranes in fuel cells)

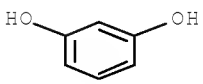
IT 69777-44-2P 124949-92-4P 124950-77-2P 137024-96-5P
RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(proton-conductive polymer compns. with good adhesion for proton-conductive membranes in fuel cells)

RN 69777-44-2 HCAPLUS

CN 1,3-Benzenediol, polymer with 1,1'-sulfonylbis[4-chlorobenzene] (9CI) (CA INDEX NAME)

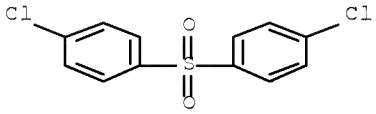
CM 1

CRN 108-46-3
CMF C6 H6 O2



CM 2

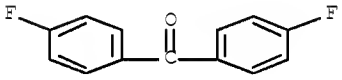
CRN 80-07-9
CMF C12 H8 Cl2 O2 S



RN 124949-92-4 HCAPLUS
CN Methanone, bis(4-fluorophenyl)-, polymer with 1,3-benzenediol and 1,4-benzenediol (9CI) (CA INDEX NAME)

CM 1

CRN 345-92-6
CMF C13 H8 F2 O



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CRN 123-31-9
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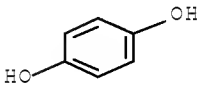
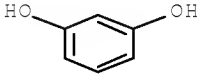


CM 3

CRN 108-46-3
CMF C6 H6 O2

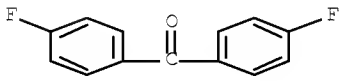


RN 124950-77-2 HCAPLUS

CN Methanone, bis(4-fluorophenyl)-, polymer with 1,3-benzenediol (CA INDEX NAME)

CM 1

CRN 345-92-6
CMF C13 H8 F2 O



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CRN 108-46-3
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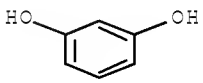
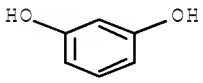


RN 137024-96-5 HCAPLUS
CN 1,3-Benzenediol, polymer with 4,4'-(1-methylethylidene)bis[phenol] and 1,1'-sulfonylbis[4-chlorobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 108-46-3
CMF C6 H6 O2



CM 2

CRN 80-07-9
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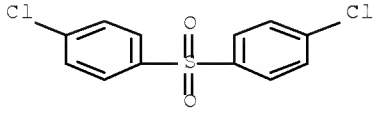

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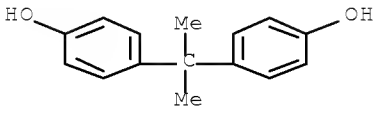
CRN 80-05-7
CMF C15 H16 O2



OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L68 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2011 ACS on STN
AN 2004:857827 HCAPLUS Full-text
DN 141:352743
TI Polymer electrolyte membrane or gas diffusion electrode for fuel cells
IN Charnock, Peter; Devine, John Neil; Wilson, Brian
PA Victrex Manufacturing Limited, UK
SO PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

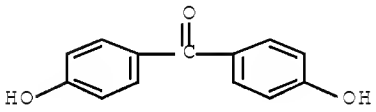
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004088778	A2	20041014	WO 2004-GB1401	20040401
	WO 2004088778	A3	20050616		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004226638	A1	20041014	AU 2004-226638	20040401
	AU 2004226638	B2	20100909		
	CA 2520650	A1	20041014	CA 2004-2520650	20040401
	EP 1614170	A2	20060111	EP 2004-725090	20040401
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	JP 2006524415	T	20061026	JP 2006-506066	20040401
	US 20070269700	A1	20071122	US 2007-551576	20070410
PRAI	GB 2003-7623	A	20030402		
	WO 2004-GB1401	W	20040401		

AB A polymer electrolyte membrane or gas diffusion electrode includes an ion-conducting polymeric material which includes moieties of formula -X-m-C6H4-X- which are substituted on average with more than 1 and 3 or fewer groups (e.g. sulfonate groups) which provide ion-exchange sites and hydrogen atoms of the moieties are optionally substituted, wherein each X in the moieties of formula are independently represent an oxygen or sulfur atom. The ion conducting polymeric material is suitably prepared by controllably sulfonating a polymeric material using about 100% sulfuric acid at 34° to

36°.
IPCI H01M0008-00 [ICM,7]
IPCR B01D0071-00 [I,C*]; B01D0071-52 [I,A]; B01D0071-68 [I,A]; B01D0071-82 [I,A]; C08G0065-00 [I,C*]; C08G0065-48 [I,A]; C08G0075-00 [I,C*]; C08G0075-23 [I,A]; C08J0005-20 [I,C*]; C08J0005-22 [I,A]; H01M0004-86 [I,C*]; H01M0004-86 [I,A]; H01M0008-10 [I,C*]; H01M0008-10 [I,A]
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38
IT 124949-97-9DP, sulfonated 124949-97-9P 775342-45-5DP, sulfonated 775342-45-5P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(polymer electrolyte membrane or gas diffusion electrode for fuel cells)
RN 124949-97-9 HCAPLUS
CN Methanone, bis(4-fluorophenyl)-, polymer with 1,3-benzenediol and bis(4-hydroxyphenyl)methanone (CA INDEX NAME)

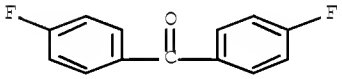
CM 1

CRN 611-99-4
CMF C13 H10 O3



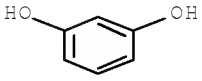
CM 2

CRN 345-92-6
CMF C13 H8 F2 O



CM 3

CRN 108-46-3
CMF C6 H6 O2

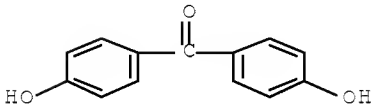


RN 775342-45-5 HCAPLUS
CN Methanone, bis(4-fluorophenyl)-, polymer with 1,3-benzenediol,

bis(4-hydroxyphenyl)methanone and 4,4'-sulfonylbis[phenol] (9CI) (CA INDEX NAME)

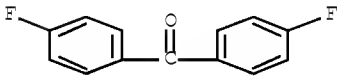
CM 1

CRN 611-99-4
CMF C13 H10 O3



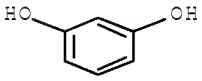
CM 2

CRN 345-92-6
CMF C13 H8 F2 O



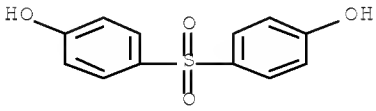
CM 3

CRN 108-46-3
CMF C6 H6 O2



CM 4

CRN 80-09-1
CMF C12 H10 O4 S



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File

Anon				WO 0119896 A1	HCAPLUS
Anon				EP 0382440 A1	HCAPLUS
Anon				US 4273903 A	HCAPLUS
Anon				US 5362836 A	HCAPLUS

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L68 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2011 ACS on STN
AN 2004:757063 HCAPLUS Full-text
DN 141:280351
TI Polymer electrolyte material, polymer electrolyte parts, membrane-electrode laminate, and polymer electrolyte fuel cell
IN Adachi, Shinya; Izuhara, Daisuke; Nakamura, Masataka; Ito, Nobuaki
PA Toray Industries, Inc., Japan
SO PCT Int. Appl., 147 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004079844	A1	20040916	WO 2004-JP2894	20040305
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	JP 2004269599	A	20040930	JP 2003-59569	20030306
	CA 2518414	A1	20040916	CA 2004-2518414	20040305
	EP 1619735	A1	20060125	EP 2004-717850	20040305
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
	CN 1757130	A	20060405	CN 2004-80006115	20040305
	CN 100364160	C	20080123		
	JP 2005174897	A	20050630	JP 2004-121470	20040416
	US 20060180796	A1	20060817	US 2005-548110	20050906
	US 7713449	B2	20100511		
PRAI	JP 2003-59569	A	20030306		
	JP 2003-116685	A	20030422		
	JP 2003-120115	A	20030424		
	JP 2003-386734	A	20031117		
	JP 2003-386735	A	20031117		
	WO 2004-JP2894	W	20040305		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The electrolyte material has a nonfreezing water fraction (Rw1) of 20-100 in a hydrous state {Rw1 = [Wnf/(Wfc + Wnf)]; Wnf= amount of nonfreezing water per g of dry weight of polymer electrolyte material; and Wfc= amount of low m.p. water per g of dry weight of polymer electrolyte material}. The parts, the laminate, and the fuel cell use the above material. The fuel cell, using the above material, has excellent proton-conductivity and fuel cutoff properties and improved efficiency.

IPCI H01M0008-02 [ICM,7]; C08G0079-04 [ICS,7]; C08G0079-00 [ICS,7,C*]; C08G0075-02 [ICS,7]; C08G0075-20 [ICS,7]; C08G0075-00 [ICS,7,C*]; C08G0065-40 [ICS,7]; C08G0065-00 [ICS,7,C*]; H01B0001-06 [ICS,7]
IPCR C08G0065-00 [I,C*]; C08G0065-40 [I,A]; C08G0075-00 [I,C*]; C08G0075-02 [I,A]; C08G0075-20 [I,A]; C08G0079-00 [I,C*]; C08G0079-04 [I,A]; C09K0005-00 [I,C*];

C09K0005-20 [I,A]; H01B0001-06 [I,C*]; H01B0001-06 [I,A]; H01B0001-12 [I,C*]; H01B0001-12 [I,A]; H01M0004-86 [N,C*]; H01M0004-86 [N,A]; H01M0004-88 [I,C*]; H01M0004-88 [I,A]; H01M0004-90 [N,C*]; H01M0004-92 [N,A]; H01M0008-02 [I,C*]; H01M0008-02 [I,A]; H01M0008-04 [I,C*]; H01M0008-04 [I,A]; H01M0008-10 [I,C*]; H01M0008-10 [I,A]

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

IT Fuel cell electrolytes
Fuel cells
(fuel cells containing polymer electrolyte materials with controlled nonfreezing water fraction for improved efficiency)

IT 7440-44-0, Carbon, uses 9002-84-0, PTFE 12779-05-4 65978-77-0D, sulfonated 106444-61-5D, sulfonated 108809-07-0D, sulfonated 116875-10-6D, sulfonated 116875-11-7D, sulfonated 122159-35-7D, sulfonated 123349-32-6D, sulfonated 125658-29-9D, sulfonated 132109-45-6D, sulfonated 132139-83-4D, sulfonated 136691-69-5D, sulfonated 146027-07-8D, sulfonated 146088-68-8D, sulfonated 199610-91-8D, sulfonated 349672-97-5D, sulfonated 673477-33-3D, sulfonated 758706-29-5D, sulfonated 758706-30-8D, sulfonated 758706-31-9D, sulfonated 758706-32-0D, sulfonated 758706-33-1D, sulfonated 758706-34-2D, sulfonated 758706-35-3D, sulfonated
RL: DEV (Device component use); USES (Uses)
(fuel cells containing polymer electrolyte materials with controlled nonfreezing water fraction for improved efficiency)

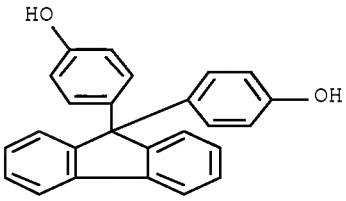
IT 199610-91-8D, **sulfonated**
RL: DEV (Device component use); USES (Uses)
(fuel cells containing polymer electrolyte materials with controlled nonfreezing water fraction for improved efficiency)

RN 199610-91-8 HCAPLUS

CN Methanone, bis(4-fluorophenyl)-, polymer with 1,3-benzenediol and 4,4'-(9H-fluoren-9-ylidene)bis[phenol] (CA INDEX NAME)

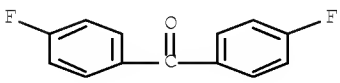
CM 1

CRN 3236-71-3
CMF C25 H18 O2



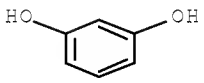
CM 2

CRN 345-92-6
CMF C13 H8 F2 O



CM 3

CRN 108-46-3
CMF C6 H6 O2



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Dainippon Ink And Chemi	1993			JP 05-271460 A	HCAPLUS
Hatanaka, T	2002	37	59	R & D Review of Toyo	HCAPLUS
Nitto Denko Corp	2001			JP 2001294705 A	HCAPLUS
Nitto Denko Corp	2001			JP 2001294706 A	HCAPLUS
Sumitomo Chemical Co Lt	1981			JP 56-34329 B2	HCAPLUS
Toa Nenryo Kogyo Kabush	1989			JP 64-22932 A	
Tonen Corp	1996			JP 08-180891 A	HCAPLUS
Toyota Central Research	1998			JP 10-340732 A	HCAPLUS
Toyota Central Research	2002			JP 2002324559 A	HCAPLUS
University Of Southern	2001			WO 2001504636 A	
University Of Southern	2001			US 6444343 B1	HCAPLUS
University Of Southern	2001			WO 9822989 A1	HCAPLUS
Victrex Manufacturing L	2002			WO 0015691 A1	HCAPLUS
Victrex Manufacturing L	2002			WO 0119896 A1	HCAPLUS
Victrex Manufacturing L	2002			JP 2002524631 A	
Walker, M	1999	74	67	Journal of Applied P	HCAPLUS

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L68 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2011 ACS on STN
AN 1990:57030 HCAPLUS Full-text
DN 112:57030
OREF 112:9813a,9816a
TI Fully aromatic polyether-polyketone manufacture
IN Matsuo, Shigeru; Yamukai, Naoto; Kayano, Chikafumi
PA Idemitsu Kosan Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

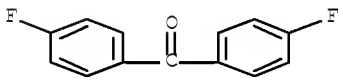
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01198624	A	19890810	JP 1988-23570	19880203
PRAI JP 1988-23570		19880203		

AB The title polymers, with high strength and useful as engineering plastics, contain carbonyldi-p-phenylene groups, resorcinol, and other bisphenols. A copolymer of 4,4'-difluorobenzophenone, resorcinol, and hydroquinone was prepared with reduced viscosity 1.12 dL/g, glass temperature 145°, flexural strength 1390 kg/cm2, flexural modulus 33,500 kg/cm2, tensile strength 920 kg, and tensile modulus 27,800 kg/cm2.

IPCI C08G0065-40 [ICM,4]; C08G0065-00 [ICM,4,C*]
IPCR C08G0065-00 [I,C*]; C08G0065-40 [I,A]
CC 35-5 (Chemistry of Synthetic High Polymers)
IT 124949-91-3P 124949-92-4P 124949-93-5P 124949-94-6P
124949-95-7P 124949-96-8P 124949-97-9P
RL: PREP (Preparation)
(heat-resistant, with good strength, preparation of)
IT 124949-92-4P 124949-97-9P
RL: PREP (Preparation)
(heat-resistant, with good strength, preparation of)
RN 124949-92-4 HCAPLUS
CN Methanone, bis(4-fluorophenyl)-, polymer with 1,3-benzenediol and 1,4-benzenediol (9CI) (CA INDEX NAME)

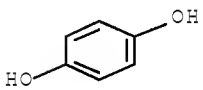
CM 1

CRN 345-92-6
CMF C13 H8 F2 O



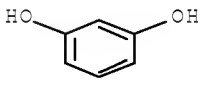
CM 2

CRN 123-31-9
CMF C6 H6 O2



CM 3

CRN 108-46-3
CMF C6 H6 O2

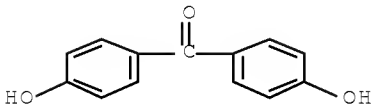


RN 124949-97-9 HCAPLUS
CN Methanone, bis(4-fluorophenyl)-, polymer with 1,3-benzenediol and bis(4-hydroxyphenyl)methanone (CA INDEX NAME)

CM 1

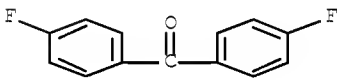
CRN 611-99-4

CMF C13 H10 O3



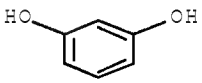
CM 2

CRN 345-92-6
CMF C13 H8 F2 O



CM 3

CRN 108-46-3
CMF C6 H6 O2



=> d his

(FILE 'HOME' ENTERED AT 08:30:31 ON 08 FEB 2011)

FILE 'HCAPLUS' ENTERED AT 08:30:45 ON 08 FEB 2011

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L1             1 S US20070269700/PN OR (US2007-551576 OR WO2004-GB1401 OR GB2003
               E CHARNOCK/AU
L2            10 S E52-E53,E55-E56
               E DEVINE/AU
               E DEVINE J/AU
L3            48 S E3,E10,E35,E42,E43
               E WILSON/AU
L4             7 S E3
               E WILSON B/AU
L5           611 S E3-E30
               E WILSON BRIAN/AU
L6           340 S E3-E22
               E VITREX/CO
               E VICTREX/CO
L7            71 S VICTREX?/CO,PA,CS
               E E9+ALL
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                E E1+ALL
L8            50 S E2,E3/CO,PA,CS
L9             1 S L1 AND L2-L8
                SEL RN

     FILE 'REGISTRY' ENTERED AT 08:34:56 ON 08 FEB 2011
L10            4 S E1-E4
                E C6H6O2/MF
L11           33 S E3 AND 1 46.150.18/RID AND 1/NR AND 1 3
L12            1 S L11 AND 1,3-BENZENEDIOL/CN
                E C6H6S2/MF
L13            8 S E3 AND 1 46.150.18/RID AND 1/NR
L14            1 S L13 AND 1,3-BENZENEDITHIOL/CN
                E C6H6OS/MF
L15           10 S E3 AND 1 46.150.18/RID AND 1/NR
L16            1 S L15 AND PHENOL, 3-MERCAPTO-/CN
L17            3 S L12,L14,L16
L18         2353 S (40248-84-8 OR 626-04-0 OR 108-46-3)/CRN AND PMS/CI
                E "(C6H4OS)N"/MF
                E POLYETHER/PCT
L19          520 S L18 AND E3,E4
                E POLYSULFONE/PCT
L20           92 S L18 AND E3,E4
                E POLYKETONE/PCT
L21           89 S L18 AND E3,E4
L22          560 S L19-L21
L23          320 S L22 NOT (N OR P OR SI)/ELS
L24          240 S L22 NOT L23
L25         1793 S L18 NOT L22
L26            3 S L10 AND PMS/CI

     FILE 'HCAPLUS' ENTERED AT 08:42:51 ON 08 FEB 2011
L27            9 S L26
L28          468 S L23
L29          262 S L24
L30         6147 S L25
L31            8 S L27 AND (PY<=2003 OR PRY<=2003 OR AY<=2003)
L32            6 S L27,L31 AND L1-L9
L33            9 S L27,L31,L32
L34            7 S L33 AND H01M/IPC,IC,ICM,ICS,EPC
L35            7 S L33 AND B01D/IPC,IC,ICM,ICS,EPC
L36            2 S L33 NOT L34,L35
L37            1 S L36 NOT RESIN
L38            8 S L34,L35,L37
L39         5184 S L28-L30 AND (PY<=2003 OR PRY<=2003 OR AY<=2003)
L40           27 S L39 AND H01M/IPC,IC,ICM,ICS,EPC
L41           18 S L39 AND B01D071/IPC,IC,ICM,ICS,EPC
                E CONDUCTING POLYMERS/CT
L42        22919 S E3-E8
                E E3+ALL
L43        26354 S E5,E6
                E E21
                E E3+ALL
L44         6799 S E9
                E E13+ALL
L45        12795 S E5
                E E4+ALL
L46        20550 S E10 OR E12
L47        29014 S E14
                E ION EXCHANGE/CT
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                E E9+ALL
L48          5349 S E8,E9,E10
L49          2785 S E12 OR E13
L50         60609 S E7
                E ION EXCHANGE/CT
                E E3+ALL
L51         33291 S E3,E5,E6
                E E13+ALL
                E BATTERY/CT
L52         76789 S E5+OLD,NT OR E7+OLD,NT OR E9+OLD,NT OR E11+OLD,NT
                E E13+ALL
L53         13948 S E2+OLD,NT OR E3+OLD,NT OR E4+OLD,NT
                E BATTERIES/CT
                E E3+ALL
L54        190718 S E1 OR E2+OLD,NT OR E3+OLD,NT OR E4+OLD,NT OR E5+OLD,NT
L55            55 S L39 AND L42-L54
L56            77 S L40,L41,L55
L57             2 S L1-L9 AND L28-L30
L58             9 S L38,L57
L59            76 S L56 NOT L58
L60            23 S L59 NOT P/DT
L61            53 S L59 NOT L60
L62            26 S L61 AND H01M/IPC,IC,ICM,ICS,EPC
L63            27 S L61 NOT L62
L64            35 S L58,L62
                  SEL HIT RN

     FILE 'REGISTRY' ENTERED AT 08:57:55 ON 08 FEB 2011
L65            16 S E1-E16
L66             8 S L65 NOT (CH2O OR C8H18O5 OR C6H7O4P OR C2H4O)

     FILE 'HCAPLUS' ENTERED AT 08:59:51 ON 08 FEB 2011
L67             5 S L66 AND L64
L68             5 S (L39 AND L67) OR (L32 AND L31)
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